

a1 --Figures 8A and 8B show a 3-point Dixon GRE image of the articular cartilage of medial femorotibial compartment in a normal 35-year old volunteer. Figure 8A has the subject in a supine position and Figure 8B has the subject in an upright position.--

Please replace the paragraph beginning on line 8 of page 18 with the following:

a2 --Figure 11B is a 2D cartilage thickness map demonstrating abrupt decrease in cartilage thickness in an area of the defect (arrows). The  $\Delta$  thickness between the neighboring pixels can be used to define the borders of the cartilage defect. Note diffuse cartilage thinning in the area enclosed by the asterisks (\*).--

Please replace the paragraph beginning on line 11 of page 18 with the following:

a3 --Figures 10A-10C show a 3D surface registration of femoral condyles based on T1-weighted spin-echo MR images. Figure 10A is baseline with a knee in neutral position. Figure 10B is a follow-up with knee and external rotation with a 3D view that is the identical to the one used in 10A but the difference in knee rotation is apparent. In Figure 10C, transformation and re-registration of Scan B to the object coordinate system of Scan A shows the anatomic match to A is excellent.--

In the claims:

Please amend claims 1, 2 and 10 as follows:

- a4
- sub B1
1. (Amended) A method of treating a human joint disease involving cartilage, which method comprises  
obtaining an electronic image of said joint, wherein said image includes both normal and diseased cartilage tissue;  
electronically evaluating said image to obtain information selected from the group consisting of volume, area, thickness, curvature, geometry, water content, sodium content, hyaluronic acid content, signal intensity or relaxation time of said normal or diseased tissue; and  
selecting a therapy based on said information.
- 2 90
- A